

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Noboru TSUBOI

SERIAL NO: New Application

GAU:

FILED: Herewith

EXAMINER:

FOR: SCREW REFRIGERATING APPARATUS

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

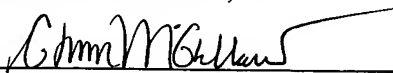
- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment form is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.


C. Irvin McClelland

Registration No. 21,124

Customer Number

22850

Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 05/03)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Noboru TSUBOI

SERIAL NO.: New Application

FILED: Herewith

FOR: SCREW REFRIGERATING APPARATUS

STATEMENT OF RELEVANCY

Reference AO on Form PTO-1449:

This reference is explained in the specification.

PURPOSE: To enable a compressor to easily start and to do so even in a situation that pressure during its stop is high as just after its defrosting, by installing an unloader mechanism to the higher stage side of a two-stage compressor.

CONSTITUTION: A compound-type two-stage screw compressor has a casing 4 of a higher stage, a casing 1 of a lower stage and rotors 2, 3, 5, 6. Here a bypass hole 16 is installed to bypass gas in compression stroke into the casing on the higher stage side and rotors 5, 6. The gas in compression stroke is thus bypassed (an unloader function) to a medium pressure part and the pressure does not rise, so a starting load can be lightened.

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 241942US3		SERIAL NO. New Application	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Noboru TSUBOI			
				FILING DATE Herewith		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	AO	1-273894	11/1/89	Japan		X	
	AP						
	AQ						
	AR						
	AS						
	AT						
	AU						
	AV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	AW						
	AX						
	AY						
	AZ					<input type="checkbox"/> Additional References sheet(s) attached	
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							